

10/591432

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ADS Rec'd PCT/PTO 01 SEP 2006

Application Number : Unassigned Confirmation No.: Unassigned
Applicant : Claus FROHBERG et al.
Filed : September 1, 2006
Title : PLANTS WITH INCREASED ACTIVITY OF MULTIPLE
 STARCH PHOSPHORYLATING ENZYMES
TC/Art Unit : Unassigned
Examiner: : Unassigned
Docket No. : 65084.000022
Customer No. : 21967

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.97 and 1.98, and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicants submit herewith copies of the references listed on the attached Form PTO-SB/08A (modified) for consideration and to be made of record herein by the U.S. Patent and Trademark Office in the above-captioned application.

This Information Disclosure Statement (IDS) is not to be construed as a representation that a search has, or has not, been conducted or that no better art exists. The filing of this IDS is not to be construed as admission that the information cited in the IDS is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

Consideration of the foregoing plus the prompt return of a copy of the enclosed Form SB/08A with the Examiner's initials in the left column in accordance with MPEP § 609 are respectfully requested.

In accordance with 37 C.F.R. § 1.97(b), this Information Disclosure Statement is believed to be submitted within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d); therefore, it is respectfully submitted that no fee is required for consideration of this information. However, if a fee is required, the

Commissioner is hereby authorized to charge any fee, or credit any overpayment, to Deposit
Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: September 1, 2006

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
 (use as many sheets as necessary)

Sheet 2 of 4

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First Named Inventor	Claus FROHBERG et al.
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Attorney Docket Number	65084.000022

OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
			YES	NO
/BP/		Baunsgaard et al.; <i>A novel Isoform of Glucan, Water Dikinase Phosphorylates Pre-Phosphorylated α-glucan and is Involved in Starch Degradation in Arabidopsis</i> ; The Plant Journal, 2005, Vol. 41, pp. 595 - 605; XP-002339143	<input type="checkbox"/>	<input type="checkbox"/>
		Kötting et al.; <i>Identification of a Novel Enzyme Required for Starch Metabolism in Arabidopsis Leaves. The Phosphoglucan, Water Dikinase</i> ; Plant Physiology, January 2005, Vol. 137, pp. 242 - 252; XP-002339144	<input type="checkbox"/>	<input type="checkbox"/>
		Mikkelsen et al.; <i>Functional Characterization of α-glucan, Water Dikinase, the Starch Phosphorylating Enzyme</i> ; Biochem Journal, 2004, Vol. 377, pp. 525 - 532; XP002339213	<input type="checkbox"/>	<input type="checkbox"/>
		Ritte et al.; <i>The starch-related R1 protein is an α-glucan, water dikinase</i> ; PNAS; May 14, 2002; Vol. 99; No. 10; pp. 7166 - 7171	<input type="checkbox"/>	<input type="checkbox"/>
		Blennow et al.; <i>Starch phosphorylation: a new front line in starch research</i> ; Trends in Plant Science; October 2002; Vol. 7, No. 10; pp. 445 - 450	<input type="checkbox"/>	<input type="checkbox"/>
		Tabata et al.; <i>Studies on Starch Phosphate</i> ; Die Stärke/Starch; 1971; Vol. 23, pp. 267 - 272	<input type="checkbox"/>	<input type="checkbox"/>
		Blennow et al.; <i>The distribution of covalently bound phosphate in the starch granule in relation to starch crystallinity</i> ; International Journal of Biological Macromolecules; 2000; Vol. 27, pp. 211 - 218	<input type="checkbox"/>	<input type="checkbox"/>
		Blennow et al.; <i>Starch molecular structure and phosphorylation investigated by a combined chromatographic and chemometric approach</i> ; Carbohydrate Polymers; 2000, Vol. 41, pp. 163 - 174	<input type="checkbox"/>	<input type="checkbox"/>
		Jane et al., <i>Phosphorus in Rice and Other Starches</i> ; Cereal Foods World, November - December 1996; Vol. 41; No. 11; pp. 827 - 832	<input type="checkbox"/>	<input type="checkbox"/>
V		Lorberth et al.; <i>Inhibition of a starch-granule-bound protein leads to modified starch and repression of cold sweetening</i> ; Nature Biotechnology; May 1998; Vol. 16, pp. 473 - 477; XP002111459	<input type="checkbox"/>	<input type="checkbox"/>

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Sheet

3 of 4

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Art Unit

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OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
			YES	NO
/BP/		Yu et. al.; <i>The Arabidopsis sex1 Mutant is Defective in the R1 Protein, a General Regulator of Starch Degradation in Plants, and Not in the Chloroplast Hexose Transporter; The Plant Cell</i> ; August 2001; Vol. 13, pp. 1907 - 1918; XP002252059	<input type="checkbox"/>	<input type="checkbox"/>
		Ritter et. al.; <i>Compartmentation of the Starch-Related R1 Protein in Higher Plants; Starch/Stärke</i> ; 2000; Vol. 52; pp. 179 - 185	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Direct Submission</i> ; July 22, 2003; Y09533	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Expression and functional characterization of R1 in Escherichia Coli</i> ; February 26, 2001; AY027522	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Nucleic acid molecules from wheat, transgenic plant cells and plants and the thereof for the production of modified starch</i> ; December 20, 2002; AAN93923 and AR236165	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Nucleic acid encoding a starch R1 phosphorylation protein homolog from maize</i> ; December 18, 2003; AR400813 and AAR61444	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Compositions and methods for the therapy and diagnosis of prostate cancer</i> ; December 18, 2003; AR400184	<input type="checkbox"/>	<input type="checkbox"/>
▼		NCBI Sequence Viewer; <i>Nucleic acid encoding a starch R1 phosphorylation protein homolog from maize</i> ; December 18, 2003; AAR61445	<input type="checkbox"/>	<input type="checkbox"/>
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			YES	NO
/BP/		NCBI Sequence Viewer; <i>Nucleic acid encoding a starch R1 phosphorylation protein homolog from maize</i> ; December 18, 2003; AR400815	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Nucleic acid encoding a starch R1 phosphorylation protein homolog from maize</i> ; December 18, 2003; AAR61446	<input type="checkbox"/>	<input type="checkbox"/>
		NCBI Sequence Viewer; <i>Effects of carbohydrate starvation on gene expression in citrus root</i> ; July 23, 2003; AY094062	<input type="checkbox"/>	<input type="checkbox"/>
↓		NCBI Sequence Viewer; <i>The Arabidopsis sex1 mutant is defective in the R1 protein...</i> ; August 24, 2001; AF312027	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
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